

KROPACHEVA, A.A.; KASHNIKOV, N.M.

Isomerism of di-, tri-, and tetrapyrrolidyl derivatives  
of a phosphonitrile chloride trimer. Zhur.ob.khim. 33  
no.3:1046-1047 Mr '63. (MIRA 16:3)

1. Vsesoyuznyy nauchno-issledovatel'skiy khimiko-  
farmatsevticheskiy institut imeni S. Ordzhonikidze.  
(Phosphonitrile chloride)  
(Pyrrolidine) (Isomerism)

L 27772-66 EWP(j)/EWT(m)/T IJP(c) RM/VW  
ACC NR: AP6018503

SOURCE CODE: UR/0079/65/035/011/1988/1992

AUTHOR: Kropacheva, A. A.; Kashnikova, N. M.

27  
B

ORG: All-Union Scientific Research Chemical and Pharmaceutical Institute im. S. Ordzhonikidze (Vsesoyuznyy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy institut)

TITLE: Reaction of phosphonitrile chloride trimer. IV. Reaction of replacement of chlorine atoms of phosphonitrile chloride trimer by pyrrolidine

SOURCE: Zhurnal obshchey khimii, v. 35, no. 11, 1965, 1988-1992

TOPIC TAGS: phosphonitrile, nonmetallic organic derivative, chlorinated organic compound

ABSTRACT: The possibility of successive replacement of one to six chlorine atoms of phosphonitrile chloride trimer by pyrrolidine was established, and the order of substitution was demonstrated. Replacement of the first and second chlorine atoms proceeds vigorously with evolution of heat; in the further substitution, the reactivity of the remaining chlorine atoms decreases with increasing number of substituted pyrrolidine groups. Complete substitution is possible after prolonged standing or with heating. The reaction is not unambiguous at any of the degrees of substitution, the reaction mass containing derivatives with lower and higher degrees of substitution at the same time. Variation of the temperature system and rate of addition of pyrrolidine permitted an influence on the course of the reaction, directing it toward predominant formation of derivatives with a set degree of substitution. Mono-, tri-, and hexapyrrolidyl derivatives can be

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UDC: 546.287:547.743.1

L 27772-66

ACC NR: AP6018503

produced in 60-80% yields, whereas the yields of the di- and tetra-derivatives do not exceed 36-38%, and the yields of the pentapyrrolidyl derivative are negligible. Isomeric compounds of the di-, tri-, and tetrapyrrolidyl derivatives were isolated. Ten structures with substituents of one type out of the 12 theoretically possible were isolated for the first time. Replacement of the chlorine atoms by pyrrolidine was found to proceed for the most part not in pairs, but one by one on different phosphorus atoms. *[JPRS]*

SUB CODE: 07/ SUBM DATE: 13Nov64 / ORIG REF: 004 / OTH REF: 002

Card 2/2 CC

LARICHEVA, M.D., kand.sel'skokhozyaystvennykh nauk; SHNEYDER, Yu.I.,  
kand.bilogicheskikh nauk; KASHMANOVA, O.I.

Late fall sowing as a method for developing a comparatively  
disease resistant variety of sugar beets. Agrobiologiya no.3:  
447-448 My-Je '62. (MIRA 15:10)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut kormov,  
Moskovskaya oblast'.  
(MOSCOW PROVINCE--SUGAR BEETS--DISEASE AND PEST RESISTANCE)

KASHMANOVA V.M.

"Combined Use of Radioactive Phosphorus and Calcium by root Plants," by S. S. Shain, Doctor of Agricultural Sciences; V. M. Kashmanova; M. A. Mel'nikova; and A. V. Motova, All-Union Scientific Research Institute of Fodder imeni V. R. Vil'yams, Doklady Vsesoyuznoy Ordena Lenina Akademii Sel'skokhozyaystvennykh Nauk imeni V. I. Lenina, No 1, 1957, PP 15-23

A number of experiments were conducted to establish, the interrelationship between the use of nutritive substances by food plants when sown in pure form and in mixed form. Radioactive phosphorus and calcium absorbed through root systems were used for this purpose.

Results indicated that the phosphorus and calcium that were absorbed by the roots were partially secreted into the soil and became accessible to the surrounding plants of the same or of different species. A part of the food substances absorbed by the various plants, was secreted from the root system and served as food for both the various microorganisms and for the adjoining plants of various species. The intimate intertwining of roots of grasslike plants in the soil evidently is significant not only for the improved use by plants of nutritive substances from the soil, but also for a more complete reciprocal use of root secretions. (U)

Shain S. S. 1967

KASHMANOVA, V.M.

SHAIN, S.S., doktor sel'skokhozyaystvennykh nauk, professor; KASHMANOVA, V.M.  
aspirant; MEL'NIKOVA, M.A., aspirant; MOTOVA, A.V., aspirant.

Correlation between forage plants in nutrient utilization. Nauka i  
pered.op. v sel'khoz. 7 no.2:47-50 F '57. (MLRA 10:3)  
(Forage plants) (Plants--Nutrition)

SHAIN, S.S., doktor sel'skokhozyaystvennykh nauk, prof.; KASHMANOVA, V.M.,  
nauchnyy sotrudnik

Role of perennial grass roots penetrating into subsoil. Zemledelie  
7 no.11:56-61 N '59 (MIRA 13:3)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut kormov imeni V. R.  
Vil'yamsa (for Shain). 2. Ivanovskaya oblastnaya sel'skokhozyayst-  
vennaya opytnaya stantsiya (for Kashmanova).  
(Grasses) (Roots (Botany))

KASHMEL', Ya.K.

Acupuncture therapy in nocturnal enuresis. Zdrav. Bel. 7 no.6:51-52  
Je '61. (MIRA 15:2)

1. Iz medsanchasti Minskogo traktornogo zavoda (glavnyy vrach M.N.  
Poltarak). (ACUPUNCTURE) (URINE\_\_INCONTINENCE)



KASHMEL', Ya.K.

Treatment by acupuncture of peripheral paralysis of the facial  
nerve. Zdrav. bel. 8 no.1:57-58 Ja '62. (MIRA 15:3)

1. Iz polikliniki Minskogo traktornogo zavoda.  
(PARALYSIS, FACIAL)  
(ACUPUNCTURE)

YEGOROV, V.I., KASHMINSKIY, Yu.N., PONOMAREV, P.V.

Changes in cardiovascular and renal function in hypothermia [with summary in English]. Exper.khir. 1 no.3:24-33 My-Je '56 (MIRA 11:10)

1. Iz kafedry gosptal'noy terapii (nach. - chlen-korrespondent AMN SSSR prof. N.S. Molchanov) i kafedry gosptal'noy khirurgii (nach. - prof. I.S. Kolesnikov) Voenno-meditsinskoy ordena Lenina adademii imeni S.M. Kirova.

(HYPOTHERMIA, eff.

on cardiovasc. & kidney funct. (Rus))

(CARDIOVASCULAR SYTEM, physiol.

eff. of hypothermia (Rus))

(KIDNEYS, physiol.

eff of hypothermia (Rus))

RODIONOV, A. I.; KASHNIKOV, A. M.; RADIKOVSKIY, V. M.

"Determination of the phase contact surface and the heat- and mass-transfer coefficients for turbogrid sieve plates."

report submitted for 2nd All-Union Conf on Heat & Mass Transfer, Minsk, 4-12 May 1964.

Moscow Chemical Technology Inst.

RODIONOV, A.I.; KASHNIKOV, A.M.

Testing of a downcomerless tray at various angles of inclination.  
Zhur. prikl. khim. 36 no.8:1737-1743 Ag '63. (MIRA 16:11)

1. Moskovskiy khimiko-tekhnologicheskii institut imeni D.I.  
Mendeleyeva.

RODIONOV, A.I.; KASHNIKOV, A.M.; RADIKOVSKIY, V.M.

Determination of the interfacial area in the gas - liquid system  
on contact plates. Khim. prom. 40 no.10:737-741 0 '64.  
(MIRA 18:3)

RODIONOV, A.I.; KASHNIKOV, A.M.

Determination of the contact surface of phases and mass transfer coefficients in the liquid phase on sieve plates. Zhur. prikl. khim. 38 no.5:1063-1068 My '65. (MIRA 18:11)

1. Moskovskiy khimiko-tehnologicheskii institut imeni D.I. Mendeleeva.

RODIONOV, A.I.; KACHNIREV, A.M.; KACHNIREV, A.M.

Determination of the interface on homogeneous glass plates.  
Zhur. prikl. Khim. 38 no.1:143-148 Ja '85.

(MIRA 18:3)

1. Moskovskiy khimiko-tekhnologicheskii institut imeni Mendeleyeva.

RODIONOV, A.I.; KASHNIKOV, A.M.; RADIKOVSKIY, V.M.

Determining the number of plates in the absorption column by  
the surface of the phase contact. Trudy MKHTI no.47:5-10 '64.  
(MIRA 18:9)



KASHIRKO., P. I.

33319. Sady I Vinogradniki- Zhemchuzhina Nashey Respubliki. Vinodeliye I  
Vinogradarstvo Moldavii, 1949, No. 5, C. 3-9

SO: Letopis' Zhurnal'nykh Statey Vol. 45, Moskva, 1949

KASHENKOV, F. I.

3534. Sel'skoe Khozyaystvo Moldavii Za 25 Let. V Sb: 25 Let Moldav. Sov. Sots. Respubliki. Kishinev, 1949, S. 67-96

SO: Letopis' Zhurnal'nykh Statey Vol. 34, Moskva, 1949

PETROVICH, Ya.; KASHNIKOV, F.

~~Fellow-workers'~~ courts attached to apartment house offices.  
Zhil.-kom.khoz. 9 no.11:10-11 '59. (MIRA 13:2)

1. Predsedatel' tovarishcheskogo suda pri domoupravlenii  
No.8/13, g.Angarsk, Irkutskaya oblast'.  
(Labor courts)

L 45907-66 EWT(1)/EWP(e)/EWT(m) WH

ACC NR: AR6015970

SOURCE CODE: UR/0275/65/000/011/A028/A028

AUTHOR: Kashnikov, N. G.; Kiselev, Yu. V.; Malev, M. D.

TITLE: A method for reducing the statistical delay time for ignition of a spark discharge

SOURCE: Ref. zh. Elektronika i yeye primeneniye, Abs. 11A185

REF SOURCE: Sb. Proboy dielektrikov i poluprovodnikov. M.-L., Energiya, 1964, 69-71

TOPIC TAGS: spark ignition, cold cathode, gas discharge, corona discharge

ABSTRACT: A method is proposed for considerably reducing the statistical delay time for ignition of a spark discharge in cold-cathode gas discharge devices. The method is based on creating a sharply nonhomogeneous field in the plane-plane gap by introducing an insulator with a high dielectric constant. A grade 22-X ( $\epsilon=8$ ) ceramic sleeve between the electrodes reduces the delay time from 50-100 msec to 50  $\mu$ sec, while a titanium ceramic insulator ( $\epsilon=1000$ ) reduces the delay time to 2-5  $\mu$ sec. The authors discuss the mechanism responsible for the reduction in statistical delay when a solid insulator is placed between the electrodes of a discharge gap. The following are cited as possible processes: 1) the generation of corona discharges between the electrodes and the dielectric with subsequent diffusion of particles into the discharge gap; 2) an increase in field strength in the gap resulting in an increase in

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UDC: 537.525

45007-66

ACC NR: AR6015970

the breakdown probability. A design is given for a spark discharger with a ceramic sleeve between electrodes. The sleeve has an annular gap for total elimination of the conducting bridges usually formed on the surface of the ceramic by vaporization of the electrode surfaces. V. Ch. [Translation of abstract]

SUB CODE: 20, 09

Card 2/2

mjs

9(4)

SOV/112-58-3-4681

Translation from: Referativnyy zhurnal. Elektrotehnika, 1958, Nr 3,  
pp 188-189 (USSR)

AUTHOR: Kashnikov, N. G.

TITLE: Gas-Discharge Voltage Stabilizers  
(Gazorazryadnyye stabilizatory napryazheniya)

PERIODICAL: Tr. N.-i. in-ta. M-vo radiotekhn. prom-sti SSSR, 1957,  
Nr 4 (40), pp 58-74

ABSTRACT: Nomenclature, fundamental properties, and purpose of voltage-regulator tubes used as main elements in electron voltage-stabilizing units as well as used for direct voltage stabilization are considered. In the first case, high stability of discharge voltage within a narrow range of operating currents (a few milliamperes) is required; in the second case, the required discharge-voltage stability is lower, but the range of operating currents is wide. According to the type of discharge used, the voltage-regulator tubes can be

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9(4)

SOV/112-58-3-4681

**Gas-Discharge Voltage Stabilizers**

classified into the corona-discharge devices (for voltages from a few hundreds to a few tens of thousands volts) and the glow-discharge devices (usually for 60-150 v). Ratings of Soviet and foreign devices are reported, as well as fundamentals of their construction and manufacturing technology.

Bibliography: 33 items.

F.M.Ya.

Card 2/2

KASHNIKOV, N. G., Cand Tech Sci -- (diss) "Characteristics of normal glow discharge and its utilization in some gas-charging devices." /Moscow/, 1960. 8 pp; (Ministry of Higher and Secondary Specialist Education, Moscow Order of Lenin Power Inst); number of copies not given; price not given; (KL, 27-60, 153)



L 22271-66 EWT(1)

ACC NR: AR6005185

SOURCE CODE: UR/0058/65/000/009/G017/G017

AUTHORS: Kashnikov, N. G.; Kiselev, Yu. V.; Malev, M. D. 78  
8

TITLE: Concerning one method of reducing the statistical delay time of spark-discharge ignition

SOURCE: Ref. zh. Fizika, Abs. 9G140

REF. SOURCE: Sb. Probay dielektrikov i poluprovodnikov. M.-L., Energiya, 1964, 69-71

TOPIC TAGS: spark gap, electric discharge, ignition lag, gas discharge counter, dielectric breakdown 21

TRANSLATION: A method is proposed for greatly reducing the statistical delay time of the ignition of a spark discharge in gas-discharge cold-cathode devices. The method is based on producing a sharply inhomogeneous field in the plane-plane gap by introducing in it an insulator with large dielectric constant. The construction of a

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L 22271-66

ACC NR: AR6005185

spark discharge gap with a ceramic bushing between the electrodes is given. The bushing has an annular gap, which eliminates completely the possibility of production of conducting bridges along the surface of the ceramic, which usually results from the sputtering of the electrode surfaces. V. Ch.

SUB CODE: 20

Card 2/2 nst

KASHNIKOV, S..P.

Computations for boiler assemblies in examples and problems. Moskva, Gos. energ. izd-vo, 1951. 239 p. (54-22803)

TJ285.K3

KASHNIKOV, Sergey Pavlovich

Consol

AUTHOR: None given

NC

96-58-2-22/23

TITLE: Sergey Pavlovich Kashnikov - Obituary

PERIODICAL: Teploenergetika, 1958, No.2, p.95 (USSR)

ABSTRACT: S.P. Kashnikov, Director of the State Scientific-technical Power Publishers (Gosudarstvennoye nauchno-tekhnicheskoye energeticheskoye izdatel'stvo) on January 31, 1958 at the age of fifty-seven. Kashnikov was educated at the Moscow Mechanical Institute (Moskovskiy mekhanicheskiy institut imeni Lomonosova) and took his post-graduate degree at the Moscow Power Institute (MEI) in 1934. Concurrently, he was doing research work in the All-Union Thermo-technical Institute (VTI). From 1934, he worked on the design of power stations and in 1938 he was manager of the heavy industry, fuel and power sections of the Council of People's Commissars (Sovet Narodnykh Komissarov). In 1941, Kashnikov became a member of the Collegium of the Ministry of Electric Power Stations of the USSR (MES SSSR), where he proved himself a good organiser.

Since 1953, he worked as director of the State Power Publishers (Gosenergoizdat) and during his term of office

Card 1/1 output was improved and increased.

1. Obituary

KASHNIKOV, V.

Podgotovka zheleznnykh dorog k rabote v voennoe vremia. /Preparing railroads for wartime operations/. (Sots. transport, 1940, no. 5, p. 25-33).

DLC: HE7.S6

89; SOVIET TRANSPORTATION AND COMMUNICATIONS, A BIBLIOGRAPHY, Library of Congress Reference Department, Washington, 1952, Unclassified.

KASHNIKOV, V.

Bezopasnost' dvizheniia na zheleznykh dorogakh v usloviakh voyny. Traffic  
safety on the railroads under war conditions/. (Sots. transport, 1940, no. 10,  
p. 16-24).

DLC: HE7.S6

SO: SOVIET TRANSPORTATION AND COMMUNICATIONS. A BIBLIOGRAPHY. Library of Congress  
Reference Department, Washington, 1952, Unclassified.

AKSENOV, I.Ya.: SUYAZOV, I.G.; KASHNIKOV, V.K., redaktor.

~~posobie dlia izucheniia pravil~~  
[Manual for studying the technical regulations for the operation of Soviet railroads] Posobie dlia izucheniia pravil tekhnicheskoi ekspluatatsii zheleznnykh dorog SSSR, 3-e izd. Moskva, Gos. transp. zhel-dor. izd-vo, 1945. 395 p. (MLRA 8:8)  
(Railroads--Management)

KASHNIKOV V.V.

SOKOL'NIKOV, N.P., inzhener; KASHNIKOV, V.V., inzhener.

Continuous cocobator. Masl.-zhir.prom. 23 no.6:41-44 '57.

(MERA 10:7)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut sinteticheskikh  
i natural'nykh dushistykh veshchestv.  
(Eugenol) (Distillation apparatus)



KASHNIKOV, V.V.; VOYTKEVICH, S.A.; BLYUMENTEL'D; BURMISTROV, M.P.

Utilization of ultraviolet absorption spectra for determining  
the characteristics of odorous substances and analyzing  
some two-component mixtures. Trudy VNIISNDV no.4:130-137 '58.  
(MIRA 12:5)

(Odorous substances--Analysis)  
(Spectrum, Ultraviolet)

ZELENETSKIY, N.N., inzh.; KASHNIKOV, V.V., inzh.; VOYTKEVICH, S.A., kand.  
khim.nauk; GEL'PERIN, N.I., doktor tekhn.nauk

Continuous fractional vacuum distillation of coriander oil.  
Masl.-zhir.prcm. 25 no.5:29-33 '59. (MIRA 12:7)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut sinteticheskikh i  
natural'nykh dushistykh veshchestv (for Zelenetskiy, Kashnikov, Voyt-  
kovich). 2. Moskovskiy institut tonkoy khimicheskoy tekhnologii im.  
M.V. Lomonosova (for Gel'perin). (Distillation, Fractional)  
(Coriander)

KASHNIKOV, V.V.

New technology and apparatus in the production of essential and  
extract oils. Zhur. VKH( 5 no.4:423-430 '60. (MIRA 13:12)

(Oils and fats)

(Essences and essential oils)

KASHNIKOV, V.V.; VOYTKEVICH, S.A.; GEL'PERIN, N.I.

Continuous method for manufacturing benzyl acetate. Trudy  
VNIISNDV no.5:107-110 '61. (MIRA 14:10)  
(Acetic acid)

KASHNIKOV, V.V.; GE PERIN, N.I.; ZHUCHKOVA, O.N.

Characteristic of the process of saponification of benzyl  
chloride. Trudy VNIISNDV no.6:150-156 '63. (MIRA 17:4)

S/129/62/000/010/006/006  
E073/E383

AUTHORS: Popova, N.N. and Kashnikova, M.L., Engineers

TITLE: Stability of the structure and properties of steels  
1X12B2MF (1Kh12V2MF), 1X12B2NM (1Kh12VNMF) and  
X111LB (Kh11LB)

PERIODICAL: Metallovedeniye i termicheskaya obrabotka metallov,  
no. 10, 1962, 63 - 64 + 1 plate

TEXT: The effect of elevated temperatures on the mechanical  
properties, microstructure and distribution of the alloying  
elements between the carbide phase and the solid solution was  
investigated for specimens cut from experimental forgings of discs,  
rotors and cylinder castings of the following steels (%):

	C	Si	Mn	Cr	Mo	W	V	Ni	S	P
1Kh12V2MF	0.16	0.37	0.75	12.16	0.70	1.95	0.33	0.25	0.015	0.01
1Kh12VNMF	0.18	0.35	0.55	13.0	0.54	1.00	0.30	0.79	0.016	0.02
Kh11LB	0.13	0.26	0.56	11.65	0.61	1.07	0.28	0.78	0.014	0.02.

The heat-treatment was as follows: normalizing at 1 050 -  
1 070 °C, oil-quenching from 1 020 - 1 050 °C, followed by tempering  
at 660 - 680 °C and furnace cooling for the steel 1Kh12V2MF;

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S/129/62/000/010/006/006

E073/E383

Stability of the structure ....

annealing at 960 °C, oil-quenching from 1 000 °C, tempering at 680 °C and furnace cooling for the steel 1Kh12VNMf; normalizing at 1 150 °C, tempering at 700 °C, furnace cooling to 150 °C, or normalizing at 1 050 °C, tempering at 680 °C and furnace cooling to 300 °C for the steel Kh11LB. Prolonged holding of the steels 1Kh12VNMf and Kh11LB at 580 - 600 °C did not produce any appreciable change in the strength, ductility and impact strength at room temperature. The impact strength of steel 1Kh12V2MF after 5 000 hours at 575 or 600 °C was considerably reduced.

[Abstracter's note: no data given.] The microhardness of all the three steels was the same in the initial state and after prolonged holding at elevated temperatures. Initially, the structure was sorbite, oriented along the crystallographic planes and 10-25% free ferrite. It contained only the carbide  $M_{23}C_6$  in the

initial state but, after holding at the elevated temperatures, additional lines corresponding to the intermetallide of the  $Fe_2Mo$  type were observed in the X-ray patterns. Immediately


after the heat-treatment, practically all the V and a large proportion of the Cr and Mo were present as carbides, the

Card 2/3

Stability of the structure ....

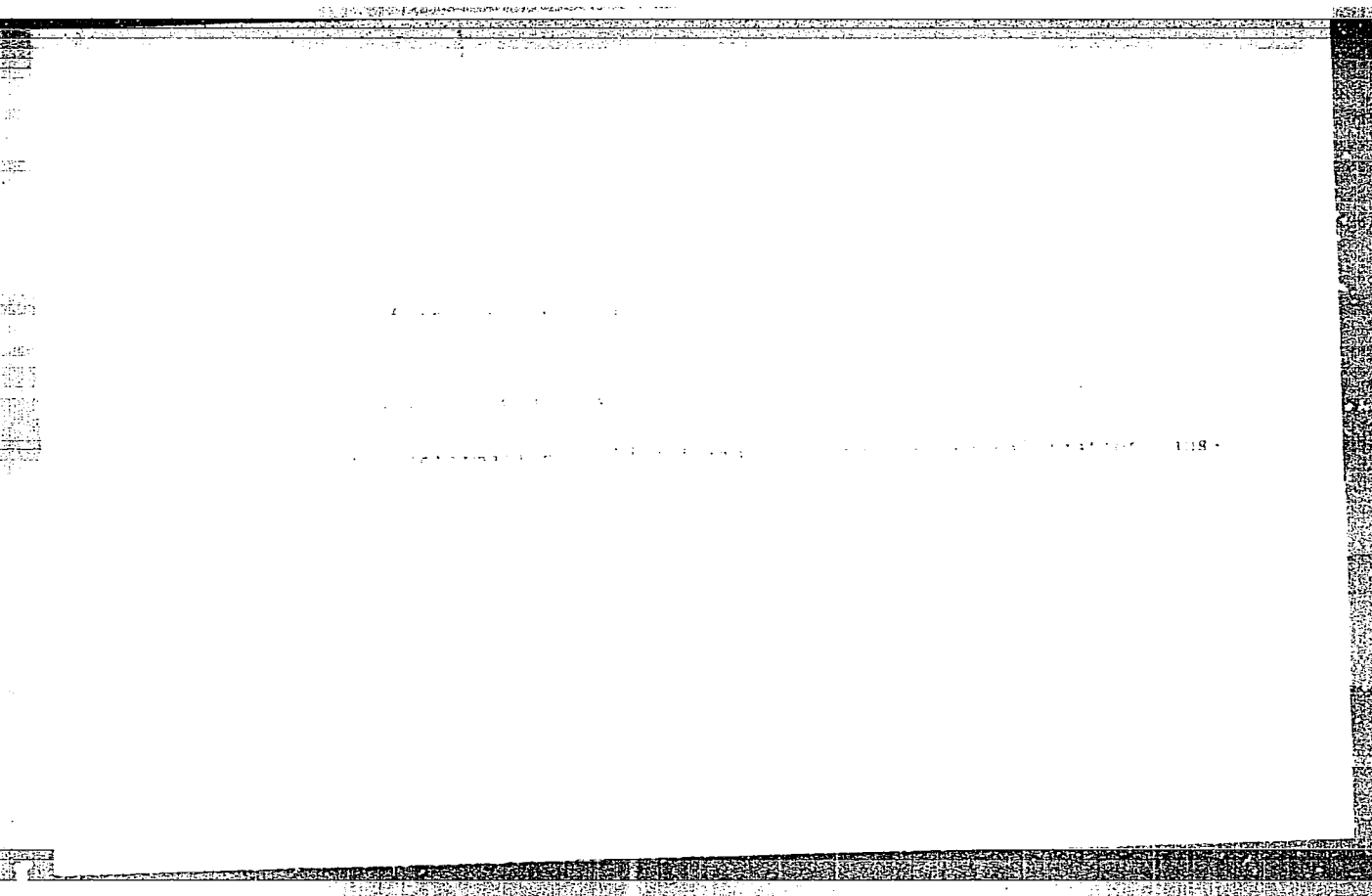
S/129/62/000/010/006/006  
E073/E383

remainder of the alloying additions being in the solid solution. After prolonged holding at elevated temperatures the W and Mo content of the carbide phase increased, and that of Fe and Ni decreased. It was concluded that steels 1Kh12VNMF and Kh11Lb retained their high strength and ductility after prolonged service of 580 - 600 °C, owing to (a) the presence of the  $\alpha_{23}C_6$  carbide stable at elevated temperatures and (b) strengthening of the solid-solution matrix by the alloying elements. There is 1 table.



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ACCESSION NR: AP5004279

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KROPACHEVA, A.A.; KASHNIKOVA, N.M.; PARSHINA, V.A.

Reactions of phosphonitrile chloride trimers. Part 2: Interaction  
of a phosphonitrile chloride trimer with glycine ethyl ester. Zhur.  
ob.khim. 34 no.2:530-532 F '64. (MIRA 17:3)

1. Vsesoyuznyy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy  
institut imeni S.Ordzhonikidze.

L 25601-66 ENT(m)/ENP(j) RM

SOURCE CODE: UR/0079/65/035/012/2229/2231

ACC NR: AP6016707

AUTHOR: Kropacheva, A. A.; Kashnikova, N. M.

25  
B

ORG: All-Union Scientific Research Chemical-Pharmaceutical Institute im.  
S. Ordzhonikidze (Vsesoyuznyy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy  
institut)

TITLE: Reaction of the trimer of phosphonitrile chloride: III. Structure of di-  
and tetra(carboethoxymethylamino)-triphosphonitrilechlorides

SOURCE: Zhurnal obshchey khimii, v. 35, no. 12, 1965, 2229-2231

TOPIC TAGS: phosphonitrile, ester, glycine, organic synthetic process, nonmetallic  
organic derivative, organic imine compound

ABSTRACT: The results of a study on di- (I) and tetra-(carbo-  
ethoxymethylamino)triphosphonitrile chlorides (II), are presented.  
It was established that in these compounds the glycine ester groups  
are placed on the phosphorus atoms in pairs, as in the ethylenimine  
derivatives of triphosphonitrile chloride previously reported by  
A. A. Kropacheva and L. Ye. Mukhina. To show the paired position  
of the glycine ester groups on compounds (I) and (II), the mixed-  
hexamino derivative structures were synthesized by changing the  
order of introduction of the substituents. [JPRS]

SUB CODE: 07 / SUBM DATE: 02Oct64 / ORIG REF: 002 / OTH REF: 001

Cord 1/1 f/

UDC: 546.185 : 546.171.1

L 18014-66 EWT(m)/EWP(j)/T WW/JW/RM

ACC NR: AP6003495

SOURCE CODE: UR/0020/66/166/001/0155/0157

AUTHOR: Kokoreva, I. Yu.; Syrkin, Ya. K.; Kropacheva, A. A.; Kashnikova, N. M.; Mukhina, L. Ye.

ORG: none

TITLE: Dipole moments of phosphonitrile chloride derivatives

SOURCE: AN SSSR. Doklady, v. 166, no. 1, 1966, 155-157

TOPIC TAGS: dipole moment, phosphonitrile, organic nitrogen compound, organic phosphorus compound, organic imine compound

ABSTRACT: The dipole moments of phosphonitrile chloride trimer and 17 of its derivatives of the pyrrolidine, piperidine, morpholine, and ethylenimine series were measured in dilute benzene solutions at 25° by the heterodyne method. Atomic polarization was not taken into account, so that the true values are somewhat lower than the tabulated ones. The dipole moment of phosphonitrile chloride trimer is 0.93 D. In the hexa-derivatives studied, the presence of substituents is thought to distort the plane of the ring, causing an increase in the dipole moment (1.75 D for the hexapyrrolidine and 1.16 D for the hexapiperidine

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UDC: 541.67

L 13014-66

ACC NR: AP6003495

derivatives). In the case of the mono-derivatives, the dipole moment of the trimer differs markedly from the moments of the monopyrrolidyl (3.74 D), mono-piperidyl (3.67 D), monoethylenimyl (3.07 D), and monomorpholyl (1.91 D) derivatives. This substantial difference is attributed to the fact that phosphorus accepts the unshared pair of electrons of the nitrogen of the substituent in its 3d subshell. Orig. art. has: 1 table.

SUB CODE: 07 / SUBM DATE: 08Jul65 / ORIG REF: 001 / OTH REF: 006

Card 2/2

*mjs*

79-28-5-11/69

AUTHORS: Yevstigneyeva, R. P., Kashnikova, N. M., Baynova, M. S.,  
Preobrazhenskiy, N. A.

TITLE: Investigations in the Series of Isoquinoline Compounds  
(Issledovaniya v ryadu izokhinolinovykh soyedineniy)  
XII. Synthesis of 4',5'-Dimethoxy-5,6-Dimethyl-7-(1"-Methyl-  
-6",7"-Dimethoxy 1",2",3",4" tetrahydroisoquinolyl)-  
-3,4,5,6,7,8-Hexahydro-Benz-(1',2'; 1,2)-Quinolisine (XII.  
Sintez 4',5'-dimetoksi-5,6-dimetil-7-(1"-metil-6",7"-dimetoksi-  
-1",2",3",4"-tetragidroizokhinolil)-3,4,5,6,7,8-geksagidro-  
-benz-(1',2';1,2)khinolizina)

PERIODICAL: Zhurnal Obshchey Khimii, 1958, Vol. 28, Nr 5,  
pp 1184 - 1189 (USSR)

ABSTRACT: One of the most interesting properties of the alkaloid emetine  
(formula I of scheme 1) is its capability to convert into  
the red-colored compound, the so-called rubremetine (Reference  
1-3) on the action of light oxidizing agents. Its structure  
has hitherto not been determined although some proposals in  
this respect were uttered (Reference 4-8). The most probable

Card 1/3

79-28-5-11/69

## Investigations in the Series of Isoquinoline Compounds. XII.

formulae of those suggested for rubremetine demand the formation of a ring system with the hydrocarbon atom  $C_8$  taking part in it. The formation of such a system would be very difficult in the presence of the substituent of the above-mentioned carbon atom, as has to be assumed. In order to carry out a more detailed investigation of the influence of the ring substituent on the formation of rubremetine the authors carried out the synthesis of two analogs of emetine which have two alkyl substituents in two free positions at the carbon atoms  $C_5$  and  $C_8$ , namely: of 4,5'-dimethoxy-5,6-dimethyl-7-(1"-methyl-6",7"-dimethoxy-1",2",3",4"-tetrahydroisoquinolyl)-3,4,5,6,7,8-hexahydro-benz-(1'2' : 1,2)-quinolisine (IV) and of 2) 8-methyl-emetine (V) (see scheme 2). The synthesis of the former is the subject of this report. The compound (IV) is also of interest because it corresponds to one of the assumed structures. As a basis for the synthesis the scheme 3 elaborated for emetine (Reference 9) was used. Thus the synthesis of the 4,5'-dimethoxy-5,6-dimethyl-7-

Card 2/3



79-28-5-11/69

Investigations in the Series of Isoquinoline Compounds. XII.

-(1"-methyl-6",7"-dimethoxy-1",2",3",4"-tetrahydroisoquinolyl)-  
-3,4,5,6,7,8-hexahydro-benz(1',2' : 1,2)-quinolizine ana-  
logous to emetine was realized. The authors obtained a rubro-  
-compound in the oxidation with bromine of the product analo-  
gous to emetine and thus proved that the substituent at the  
carbon atom C<sub>5</sub> does not impede the formation of a rubremetine  
analog. There are 1 figure and 9 references, 1 of which is  
Soviet.

ASSOCIATION: Moskovskiy institut tonkoy khimicheskoy tekhnologii (Moscow  
Institute for Fine Chemical Technology)

SUBMITTED: April 18, 1957

Card 3/3

KROPACHEVA, A.A.; MUKHINA, L. Ye.; KASHNIKOVA, N.M.; PARSHINA, V.A.

Reactions of esters of certain amino acids an piperidine with  
the phosphonitrile chloride trimer. Zhur. ob. khim. 31 no.3:1036-  
1037 Mr '61. (MIRA 14:3)

1. Vsesoyuznyy nauchno-issledovatel'skiy khimiko-farmatsevtiche-  
sky institut imeni S. Ordzhonikidze.  
(Phosphonitrile chloride) (Amino acids) (Piperidine)

S/079/62/032/002/010/011  
D243/D303

5.3630

AUTHORS: Kropacheva, A.A. and Kashnikova, N.M.

TITLE: Reaction of pyrrolidine with the trimer of phosphonitrylchloride

PERIODICAL: Zhurnal obshchey khimii, v. 32, no. 2, 1962, 652

TEXT: The authors studied the reaction of pyrrolidine with the trimer of phosphonitrylchloride. It was found that, depending on the reaction conditions, it is possible to obtain derivatives with different degrees of substitution (from one to six) of the chlorine atoms in the trimer of phosphonitrylchloride. It was revealed that, in the case of di-, tri- and tetrapyrrolidine derivatives, isomerism occurs. The compounds formed are given in a table. [Abstractor's note: Complete translation]. There is 1 table. ✓B

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy institut (All-Union Scientific Research Chemical and Pharmaceutical Institute)

SUBMITTED: October 21, 1961

Card 1/1

KROPACHEVA, A.A.; KASHNIKOVA, N.M.

Reaction of pyrrolidine with phosphonitrile chloride trimer.  
Zhur.ob.khim. 32 no.2:652 F '62. (MIRA 15:2)

1. Vsesoyuznyy nauchno-issledovatel'skiy i khimiko-farmatsevticheskiy institut.

(Pyrrolidine)  
(Phosphonitrile chloride)

KASHNITSKIY, L.A.; KUPRIYANOV, N.F.; MAKOGONOV, V.A.; FAPBMAN, I.B.,  
redaktor; POLOSINA, A.S., tekhnicheskiiy redaktor

[Instructions for planning, accounting and calculating the cost of  
oil and gas production] Instruktsiya po planirovaniyu, uchetu i  
kal'kulirovaniyu sebestoimosti dobychi nefiti i gaza. Moskva, Gos.  
nauchno-tekhn. izd-vo neftianoi i gorno-toplivnoi lit-ry, 1956.  
123 p. (MLRA 9:7)

1. Russia (1923- U.S.S.R.) Ministerstvo neftyanoy promyshlen-  
nosti.  
(Petroleum industry) (Gas, Natural)

KASHNITSKIY, L.A.

Method of calculating the cost of petroleum products. Neft.khoz.  
34 no.2:8-13 F '56. (MLRA 9:5)  
(Petroleum industry)

KASHNITSKIY, L.A.

Calculating the effect of individual factors of labor productivity in petroleum production. Neft.khoz. 37 no.12:36-39  
D '59. (MIRA 13:5)  
(Petroleum industry--Labor productivity)

KASHNITSKIY, I.A.

Investment returns in oil prospecting. Trudy VHII no.26:168-177  
'60. (MIRA 13:9)

(Oil fields--Production methods)  
(Prospecting--Costs)



KASHNITSKIY, I.A.

Economic evaluation of the quality of oil and price  
formation; a topic for discussion. Neft.khoz. 41 no. 1:  
11-14 Ja '63. (MIRA 17:7)

KRIVOSHEYEV, V.I.; MUSHIN, A.Z.; GOMBINER, B.Ya.; KASHNITSKIY, L.A.

Large-scale introduction of hydraulic fracturing in oil fields.  
Neft. khoz. 38 no.4:8-14 Ap '60. (MIRA 14:8)  
(Oil wells--Hydraulic fracturing)

KASHNITSKIY, L.A.

Partial changes in the order of calculating the cost of  
petroleum products. Izv.vys.ucheb.zav.; neft' i gaz 6 no. 12:  
107-111 '63. (MIRA 17:5)

1. Moskovskiy institut neftokhimicheskoy i gazovoy promyshlen-  
nosti im. akademika I.M.Gubkina.

KASHNITSKIY, L.A.

Economic evaluation of new methods increasing the production of oil  
and gas. Nauch.-tekhn. sbor. po dob. nefti no.24:131-134 '64.  
(MIRA 17:10)

1. Vsesoyuznyy neftogazovyy nauchno-issledovatel'skiy institut.

KASHNITSKIY, Leonid Abramovich; BROYDE, I.M., red.

[Costs and price determination in the petroleum producing industry of the U.S.S.R.] Sebestoimost' i tsenobrazovanie v neftedobyvaiushchei promyshlennosti SSSR. Moskva, Nedra, 1966. 157 p. (MIRA 19:1)

KASHNOVA, O.K. (Moscow)

Effect of hormones on dermatophytes. Vest. ven. i derm. no.3:54  
My-Je '54. (MLRA 7:8)

(HORMONES--THERAPEUTIC USE)  
(DERMATOPHYTES)

author believes that the antibodies penetrate into  
spinal cord fluid from the blood when the permeability  
of the barrier system is modified in connection with

APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000721020009-0"

Card 1/2

6

ABR-JOUR : ner zhur - BIOL., No 8, 1958, 33575

the acute inflammation process in the central nervous  
system.

Form author's resume.

AMABEKOV, I. G.; KASHPANOVA, A. S.; KISELEV, N. A.; NOVIKOV, V. K.; TOPOVA, G. A.

"Struktura antigenov i nukleoproteidov nekotorykh virusov zlakov."

report presented at Symp on Virus Diseases, Moscow, 6-9 Oct 64.

NUROK, G.A., doktor tekhn. nauk; KASHPAR, L.N., gornyy inzh.;  
MEDOVSHCHIKOV, R.S., gornyy inzh.

Hydraulic rock conveying from excavators and hydraulic  
spoil disposal in the Lebedinskiy open-pit mine of the  
Kursk Magnetic Anomaly. Gor. zhur. no.10:39-45 0 '63.  
(MIRA 16:11)  
1. Moskovskiy institut radioelektroniki i gornoy elektro-  
mekhaniki.



L 26509-66 EWT(m)/EWP(e) WH

ACC NR: AP6011531 (N) SOURCE CODE: UR/0250/66/010/003/0162/0165

AUTHORS: Bezborodov, M. A.; Kashpar, N. A. 45  
3

ORG: Belorussian Polytechnic Institute (Belorusskiy politekhnicheskiy institut)

TITLE: Some properties of glasses in the system  $\text{Li}_2\text{O}-\text{SrO}-\text{Al}_2\text{O}_3-\text{SiO}_2$  15

SOURCE: AN BSSR. Doklady, v. 10, no. 3, 1966, 162-165

TOPIC TAGS: strontium, glass, glass property, silicate glass, lithium glass, crystallization, specific density, thermal expansion

ABSTRACT: The main purpose of the investigation was to determine the effect of strontium on the glass. The synthesis and the measurement of the physical and chemical parameters are briefly described. The vitrification region was investigated for glasses with composition  $\text{Li}_2\text{O}-\text{SrO}-\text{SiO}_2$ ,  $\text{SrO}-\text{Al}_2\text{O}_3-\text{SiO}_2$ ,  $\text{Li}_2\text{O}-\text{SrO}-\text{Al}_2\text{O}_3$ , and  $\text{Li}_2\text{O}-\text{SrO}-\text{Al}_2\text{O}_3-\text{SiO}_2$ . The results are summarized in the table. Orig. art. has: 2 figures and 1 table.

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L 26509-66

ACC NR: AP6011531

TABLE

Properties of  $\text{Li}_2\text{O}-\text{SrO}-\text{Al}_2\text{O}_3-\text{SiO}_2$  glasses.

Содержание $\text{Al}_2\text{O}_3$ , мол. % 1	Температура размягчения, °C 2	Тепловое расширение, $\alpha \times 10^{-6}$ 3	Температура кристаллизации, °C		Удельный вес 6
			нижний предел 4	верхний предел 5	
0	452—645	93—120	480—740	950—1300	2,53—3,36
5	463—672	72—119	600—790	950—1180	2,53—3,34
10	461—705	63—115	580—860	900—1300	2,55—3,41
15	509—718	65—107	590—810	940—1300	2,56—3,46
20	574—756	72—102	630—780	1110—1300	2,57—3,35
25	621—725	80—87	700—820	1280—1300	2,83—3,11
30	665—755	75—82	770—820	1300	2,92—3,17

- 1)  $\text{Al}_2\text{O}_3$  content, mol.%    2) Softening temperature, deg. C  
 3) Thermal expansion,  $\alpha \times 10^{-6}$     4) Lower limit    5) Upper limit  
 4 -- 5) Crystallization temperature, deg. C    6) Specific gravity.

SUB CODE: 11, 20/ SUBM DATE: 07Jul65/ ORIG REF: 007/ OTH REF: 002

Card

2/2 10

KASHPAR, P.Ya.

Some data on the soils in Cuba. Pochvovedenie no.11:  
20-25 N '65. (MIRA 18:12)

1. Gosudarstvennyy proizvodstvennyy komitet po oroshayemomu  
zemledeliyu i vodnomu khozyaystvu SSSR. Submitted October  
28, 1964.

KASHPAREK, Ya. [Kasperek, J.]

Relaxation processes in complex viscose and polyamide fibers  
after a long period of loading. Izv. vys. ucheb. zav.; tekhn.  
tekst. prom. no.3:22-31 '62. (MLRA 17:10)

1. Khlopchatobumazhnyy nauchno-issledovatel'skiy institut v  
gorode Usti nad Orlitsey, Chekhoslovakiya.

KASHPAROV, M.M.; NANIKOV, B.A.

Investigating gas wells. Gaz. delo no.2:10-13 '64.

(MIRA 17:6)

1. Volgogradskiy nauchno-issledovatel'skiy institut neft-  
yanoy i gazovoy promyshlennosti.

KASHPAROV, M.M.; NANIKOV, B.A.

Investigating gas wells with a DGM-4 differential depth manometer. Gaz. delo no.4811-14 '64 (MIRA 17:7)

1. Volgogradskiy nauchno-issledovatel'skiy institut neftyanoy i gazovoy promyshlennosti.

PANASOV, B.V.; KASHPAROV, M.M.

Simultaneous joint and separate exploitation of groups of formations in the Archeda-Don gas fields. Gaz. delo no.5:13-17 '65. (MIRA 18:6)

1. Upravleniye Nizhne-Volzhskogo okruga Gosudarstvennogo komiteta pri Sovete Ministrov RSFSR po nadzoru za bezopasnym vedeniyem rabot v promyshlennosti i gornomu nadzoru i Volgogradskiy nauchno-issledovatel'skiy institut neftyanoy i gazovoy promyshlennosti.

MANDRYKA, P.A. (G.Lugansk), LEVI, I.B. (g.Lugansk), KASHPAROV, N.A.  
(g.Lugansk)

Operations of stations and approach tracks based on the new technology. Zhel.dor.transp. 42 no.12:67-69 D '60. (MIRA 13:12)

1. Zamestitel' nachal'nika Luganskogo otdeleniya Donetskoy dorogi (for Mandryka). 2. Nachal'nik gruzovogo otdela Luganskogo otdeleniya Donetskoy dorogi (for Levi). 3. Zamestitel' nachal'nika otdela dvizheniya i passazhirskey raboty Luganskogo otdeleniya Donetskoy dorogi (for Kashparov).

(Railroads—Management)



KASHPAROV, N.A. (g.Lugansk); LEVI, I.B. (g.Lugansk)

Comprehensive plan for rhythmic operation in the division. Zhel.  
dor. transp. 43 no. 7:60-62 J1 '61. (MIRA 14:7)

1. Zamestitel' nachal'nika otdela dvizheniya i passazhirskey raboty  
Luganskogo otdeleniya (for Kashparov). 2. Nachal'nik tekhniko-planovo-  
ekonomicheskogo otdela Luganskogo otdeleniya (for Levi).  
(Railroads—Management)

KASHPAROVA, N. P.

24051

KASHPAROVA, N. P. Nekotoryye voprosy ustoychivosti metallicheskih sterzhney za predelami uprugosti. Sbornik dokladov studentov Mosk. avtomob.-Dor. III-TA NA 2-Y Nauch. Konf-Tsii studentov vyssh. Ucheb. Zavedeniy G. Moskvy. M., 1949, S. 3-17.

SO: Letopis, No. 32, 1949.

KASHPAV

CZECHOSLOVAKIA/General Section - Problems of Teaching.

A-5

Abs Jour : Ref Zhur - Fizika, No 4, 1957, 8271

Author : Kashpav

Inst : \_\_\_\_\_

Title : Equipment for Demonstration of Experiments on Mechanics  
(Dynamics).

Orig Pub : Prirod. vedy skole, 1956, 6, No 7, 619-623.

Abstract : No abstract.

Card 1/1

*KASHPEROVSKAYA, O.*

YERSHOV, L., kandidat tekhnicheskikh nauk; KASHPEROVSKAYA, O., inzhener.

Obtaining local binding agents by means of vibration milling. Stroi.  
mat. ozdel. i konstr. 1 no.9:11-13 S'55. (MLBA 9:1)  
(Binding materials)

ACCESSION NR: AP4017644

S/0190/64/006/002/0352/0356

AUTHORS: Firsov, A. P.; Kashporov, B. N.; Chirkov, N. M.

TITLE: Polymerization of propylene in the presence of  $\alpha\text{-TiCl}_3\text{-Zn(C}_2\text{H}_5)_2$ . 1.  
The polymerization rate and the stereoisomeric composition of the polypropylene

TOPIC TAGS: polymer, polymerization, polymerization rate, propylene, polypropylene, catalyst, cocatalyst, titanium trichloride, diethylzinc, triethylaluminum, diethylberyllium, activation energy, stereospecific action

ABSTRACT: The polymerization of propylene was conducted in a specially constructed installation (as shown in Fig. 1 of the Enclosure) in n-heptane solution at super-atmospheric pressure, in the presence of the catalytic system  $\alpha\text{-TiCl}_3\text{-Zn(C}_2\text{H}_5)_2$ . At a constant pressure of 9 atm and at 60 and 70°C the polymerization rate increased during the first 2 and 3 hours, then leveled off. The observed polymerization rate was 100 and 300 times lower than the respective rates obtained with  $\text{Al(C}_2\text{H}_5)_3$  and  $\text{Be(C}_2\text{H}_5)_2$  as cocatalysts. In another test, where the concentration of propylene was the only variable, the polymerization rate at 3 atm showed a deviation from a first order of magnitude towards a higher level. Within a pressure range of 5-9 atm an almost linear dependence of the polymerization rate from the concentration of propylene was recorded. An increase in concentration of the zinc catalyst

Card 1/32

ACCESSION NR: AP4017644

within 0.0516-0.551 mol/liter resulted in an increased polymerization rate. The effective activation energy of the polymerization process by the Ti-Zn catalytic system was found to be 8200 cal/mole. It was not possible to separate quantitatively the isotactic and atactic stereoisomers of polypropylene by means of fractionation from n-heptane. Orig. art. has: 2 charts, 1 table, and 3 formulas.

ASSOCIATION: Institut khimicheskoy fiziki AN SSSR (Institute of Chemical Physics AN SSSR)

SUBMITTED: 26Jan63

DATE ACQ: 23Mar64

ENCL: 01

SUB CODE: CH

NO REF SOV: 005

OTHER: 001

Card 2/32

KASHPROVSKIY, S. [Kashprovs'kyi, S.], inzh. (Kiyev)

Automatic machinery is controlled by electricity. Nauka i zhyttia  
12 no.7:6-8 J1 '62. (MIRA 16:1)  
(Ukraine--Electric power production)  
(Ukraine--Automation)

KASHPROVSKIY, S.Ye.; KOCHEREZHKO, A.N.; LAVROV, P.I.

Concerning the use of a relative increment technique in  
operating boiler systems. Energ.i elektrotekh.prom. no.4:9-13  
O-D '62. (MIRA 16:2)

(Boilers)



KACHANOVA, Nina Andreyevna, kand. tekhn. nauk; KASHPROVSKIY, S.Ye.  
[Kashprovs'kyi, S.IE.], inzh., retsenzent;

[Electrical design of composite power systems using  
digital computers] Elektrychnyi rozrakhunok skladnykh  
energosistem na tsifrovyykh obchysliuval'nykh mashynakh.  
Kyiv, Tekhnika, 1964. 111 p. (MIRA 17:6)

KASHPROVSKIY, S.Ye.

Conference of the workers of relay protection units of the power  
systems of the Ukrainian S.S.R. Energ. i elektrotekh. prom. no.1:  
73-74 Ja-Mr '65. (MIRA 18:5)

KHRUSHCHOVA, Ye.V., kand. tekhn. nauk; KRYLOV, V.A., inzh.; KASHPROVSKIY, S.Ye.,  
inzh.

Calculation of single-phase short-circuits in the power systems of the  
Ukrainian S.S.R. using the "Ural-2" computer. Energ. i elektrotekh.  
prom. no.1:9-11 Ja-Mr '65. (MIRA 18:5)

KASHPROVSKIY, V.; SVOREN', R.

Friendship in work produces good results. Radio no.6:26-28  
Je '61. (MIRA 14:10)  
(Soils—Electric properties)

AUTHOR: Kashprovskiy, V.E.

"Long-Range Direction Finding of Thunderstorms,"  
A-U Sci Conf dedicated to "Radio Day," Moscow, 20-25 May 1957.

PERIODICAL: Radiotekhnika i Elektronika, Vol. 2, No. 9, pp. 1221-1224,  
1957, (USSR)

~~XXXXXXXXXX~~

69823

SOV/169-59-2-1700

Translation from: Referativnyi zhurnal, Geofizika, 1959, Nr 2, p 108 (USSR)

3.5000

AUTHOR: Kashprovskiy, V.Ye.

TITLE: On the Problem of the Structure of the <sup>12</sup>Lightning Discharge (Theses)

PERIODICAL: V sb.: Issled. oblakov, osadkov i grozovogo elektrichestva. Leningrad, Gidrometeoizdat, 1957, pp 152 - 153

ABSTRACT: The photographing of the pictures obtained by recorders of the shape of electromagnetic disturbances  $E(t)$  excited by thunderous discharges, shows that the shape of these disturbances can be satisfactorily approximated by the expression  $A(e^{-\alpha t} - e^{-\beta t}) = E(t)$ , wherein the average values are  $\alpha = 700 \text{ sec}^{-1}$  and  $\beta = 4,500 \text{ sec}^{-1}$ , when the discharges occur nearby, i.e., when  $r \ll \lambda$ . The variations of the lightning currents and the stretches of the discharges are connected with a permanent mechanism of developing the return shock which determines the constancy of the shape of disturbances caused by this process. The spectrum of the function  $e^{-\alpha t} - e^{-\beta t}$  has the form  $S(\omega) = A\epsilon \tilde{\gamma}(\omega)$  and keeps the similarity under the condition  $4 < \beta/\alpha < \infty$ . The quantity  $\alpha$  varies little, and

Card 1/2

Card 2/2

KASHPROVSKIY, V.

Beneficial results of the work of radio amateurs. Radio no.10:  
14-16 0 '62. (MIRA 15:10)

1. Nachal'nik laboratorii Instituta zemnogo magnetizma, ionosfery  
i rasprostraneniya radiovoln AN SSSR.

(Radio operators) (Radio clubs)

*KASHPROVSKIY, V.*

107-57-7-38/56

AUTHOR: Kashprovskiy, V.

TITLE: On a "Forgotten" Radio Waveband (O zabytom diapazone radiovoln)

PERIODICAL: Radio, 1957, Nr 7, pp 33-34 (USSR)

ABSTRACT: A general discussion of radio extra-long waves (from thousands to hundreds of thousands meters) is presented. The most important peculiarity of such waves is the fact that their field strength is constant at the point of reception. Ionospheric variations and disturbances practically do not affect the propagation of these waves. The atmospheric duct for extra-long waves is limited by the Earth's surface and by layer D in daytime or layer E in nighttime. The waves close to 100-km length suffer the highest attenuation and the waves 25 to 35-km long have the lowest attenuation in the duct. For investigation of the propagation of extra-long waves in the natural spherical atmospheric duct the lightning discharge can best be used. Oscillograms of electromagnetic disturbances and frequency-spectrum curves, found in the investigations in 1952-53, are given. Hundreds and thousands of kilometers away from the point of lightning discharge the spectrum of the electromagnetic disturbance has the nature of what is generally known as "atmospheric". Two oscillograms of typical atmospherics are shown. A "lightning direction finder" consists of two equal-sensitivity receivers tuned to 7 kc and connected to two pairs of deflecting plates of an oscilloscope. Two independent antennas are positioned at right angles; they serve to determine the direction along which radio waves are arriving. Two or more "lightning direction finders" are required to determine the point of an actual lightning.

Card 1/2



On a "Forgotten" Radio Waveband

107-57-7-38/56

Lightning direction finding networks have been built in some countries to investigate the propagation of extra-long waves and to obtain important meteorological data. All direction finders in a network are linked together by means of short-wave signal channels which help to identify individual lightning discharges. Extra-long waves readily penetrate water; at 10-15 kc they go a few tens of meters deep into the sea water. Over 100 telegraph channels plus a few navigational channels can be crammed into the 7 to 35-kc band. Extra-long waves can be used for lightning-warning service, for aeronautics, navy, RR transport, agriculture, and other purposes. Lightning-warning systems with radius of 4,000 km are already in operation. The extra-long wave band has many important applications in the future.

There are 4 figures in the article.

AVAILABLE: Library of Congress

Card 2/2

AUTHOR:

Kashprovskiy, V. Ve.

107-58-7-17/43

TITLE:

The Propagation of Radio Waves and the Conductivity of Soils  
(Rasprostraneniye radiovoln i provodimost' pochv)

PERIODICAL:

Radio, 1958, Nr 7, pp 19-21 (USSR)

ABSTRACT:

The author describes and discusses space and ground radio waves and the three reception zones centered round a transmitter. The boundaries of these zones may be found by experimental means, but this is cumbersome, requires special apparatus and is unsuitable for widescale measurement. The calculatory theoretical method is the most suitable in this case but requires the determination of several factors. In the case of ground waves, the most important of these is the conductivity of the soil. Three graphs are given for illustration's sake to show the effect of different soil conductivity on the propagation of ground waves and therefore on the reception zones. Five methods of determining soil conductivity are given of which the last one, based on the phenomenon of the damping of radio waves by the soil, is recommended for the purposes of widescale measurement. The apparatus required consists of an ordinary receiver with an indicating instrument fitted on the top of the set and connected to the detector circuit. The set is worked on

Card 1/2

107-58-7-17/43

The Propagation of Radio Waves and the Conductivity of Soils

batteries and has a frame or magnetic aerial. The receiver is turned to a nearby station and the deflection of the indicator instrument is recorded. The receiver is then lowered by rope down a convenient well or shaft and the needle deflection noted every meter. The degree of damping, and from this the conductivity of the soil can be worked out by formulas. For practical purpose, however, it is more convenient to construct a nomographic chart and, by plotting the fading factor versus the depth, determine from it the soil conductivity. The problem of determining the linear accuracy of the receiver's scale are dealt with. There are 3 graphs, 1 figure, 1 table and 1 nomographic chart.

1. Radio waves--Propagation--Mathematical analysis    2. Ground waves--Propagation--Mathematical analysis    3. Soils--Conductivity  
--Measurement

Card 2/2

AUTHOR: Kashprovskiy, V.Ye. SOV/106-58-7-5/18

TITLE: Some Properties of the Initial Electromagnetic Disturbances Caused by Lightning Discharges (Nekotoryye svoystva pervichnykh elektromagnitnykh vozmushcheniy, vyzvannykh razryadami molniy)

PERIODICAL: Elektrosvyaz', 1958, Nr 7, pp 23 - 32 (USSR)

ABSTRACT: The present work had its beginnings in 1948. The apparatus was constructed by the "Wissenschaftlich - Technisches Büro at the "Awtovello" factory in Berlin in 1952. The observations reported were made in the course of 1953 and 1954 at the NIIZM (Scientific Research Institute for Terrestrial Magnetism). Only thunderstorms less than 10 - 12 seconds away were recorded. The aerial was of inverted-L form, 10 m high, with an overall length of 100 m. Between the aerial and the main amplifier was an integrating circuit with a pass-band from 0.1 to 150 kc/s with a linear phase-change over this range. The main amplifier had an overall gain of 60 db, adjustable in steps. The oscillograph had 2 tubes, one with a long afterglow for visual recording and the other for photography. A 100  $\mu$ sec delay line was inserted between the main amplifier and the recording

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Some Properties of the Initial Electromagnetic Disturbances Caused  
by Lightning Discharges

equipment. The oscillograms observed were of 2 main kinds. Those in Figure 1 formed the majority (about 80%) while those in Figure 2 are of a rather more complex character. The explanation offered for the 2 forms of discharge is as follows: the simple form involves a single discharge through a channel which contains, in effect, two time constants (a typical synthesis is shown in Figure 3); the more complicated observation is due to a number of excitations being applied in quick succession to a channel having similar transmission characteristics. Figure 7 shows examples of the frequency characteristics of the discharge channel which have been deduced from the observations. There are 7 figures and 7 references, 4 of which are Soviet and 3 English.

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Some Properties of the Initial Electromagnetic Disturbances Caused  
by Lightning Discharges

ASSOCIATION: Nauchno-issledovatel'skiy institut Zemnogo magnetizma  
(Scientific Research Institute for Terrestrial  
Magnetism)

SUBMITTED: July 22, 1957

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1. Storms--Electrical properties 2. Storms--Analysis  
3. Laboratory equipment--Applications

KASHPROVSKIY V. Ye.

Г. М. Бортен

Вопросы затухания сигнала радиоволн в ионосфере. Статистическая обработка за время с 1938 по 1957 гг.

В. Е. Кашпровский

Методы безымянного кодирования информации. Логическая схема кодирования.

Г. В. Васильев

Ю. В. Кухаренко

Ионосфера как среда для распространения радиоволн. Исследования распространения радиоволн в ионосфере.

11 июня

(с 10 до 16 часов)

Е. Л. Фадеев

А. Д. Петровский

О приближенном гравитационном ускорении в теории распространения радиоволн в ионосфере.

С. М. Давыдов (Киевский)

Исследование эффекта Доплера при движении источника радиоволн.

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В. А. Зарубин

Исследования путей распространения радиоволн в ионосфере.

Н. Н. Петавина

Сравнительный анализ данных наблюдений на станциях Советского Союза за период Международного геофизического года.

Н. С. Зинченко

А. Я. Рогов

Отражение радиоволн ионосферного слоя от слоя земли.

11 июня

(с 18 до 22 часов)

В. С. Хантис (США)

Планирование траектории распространения УКВ для связи с космическими радиостанциями и телецентрами.

П. М. Трофимов

Исследования дальности действия телеграфных и других сигналов на УКВ.

Н. Ф. Грозов

Дальность и направление распространения радиоволн.

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report submitted for the Confidential Meeting of the Scientific Technological Society of  
Radio Engineering and Electrical Communications En. A. G. Popov (VWRM), Moscow,  
8-12 June. 1959

ACC NR: AT6020484

(A)

SOURCE CODE: UR/0000/55/000/000/0138/0164

AUTHOR: Kashprovskiy, V. Ye. (Moscow)

ORG: none

TITLE: Electrical storms as a source of ultra-low frequency waves and the utilization of these in geological prospecting

SOURCE: AN UkrSSR. Teoriya i elementy sistem otbora geofizicheskoy informatsii (Theory and elements of systems for selecting geophysical information). Kiev, Naukova dumka, 1965, 138-164

TOPIC TAGS: lightning, magnetic storm

ABSTRACT: The author discusses the possible use of ultra-low frequency waves in the 3-15 KHz range in the exploration of strata at depths of 30-40 km. Considerable discussion is devoted to the identification of storm centers throughout the world and to the electrical phenomena in thunderstorms. Storm centers in various parts of the world are evaluated and classified in terms of the number of storm-days per year. The author presents a number of oscillograms of lightning and discusses the phenomenon of the generation of transverse electric and transverse magnetic waves by lightning. Orig. art. has: 16 figures, 18 formulas.

SUB CODE: 04/

SUBM DATE: 10Nov65/

ORIG REF: 006/

OTH REF: 005

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9(9)

SOV/107-59-2-17/55

AUTHOR: Kashprovskiy, V.

TITLE: Measuring Has Begun! (Izmereniya nachalis'!)

PERIODICAL: Radio, 1959, Nr 2, p 18 (USSR)

ABSTRACT: In 1958, the journal Radio, ( Nr 7 ) requested Soviet radio amateurs to help in preparing a map showing earth conductivity in the USSR. In order to attract the masses of radio amateurs, the Ministerstvo svyazi SSSR (USSR Ministry of Communications), the Tsentral'nyy komitet DOSAAF SSSR (USSR Central Committee of the DOSAAF), and the editorial staff of the journal "Radio" announced a special competition. Since then, hundreds of radio amateurs have entered the competition; in many towns so-called "initiative" groups and circles have been established, which have contacted the Nauchno-issledovatel'skiy institut zemnogo magnetizma, ionosfery i rasprostraneniya radiovoln-NIZMIR (Scientific Research Institute of Earth Magnetism, the Ionosphere and Propagation of

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SOV/107-59-2-17/55

Measuring Has Begun!

Radio Waves). Some measuring has been carried out already and the data submitted to the NIZMIR for control. Some radio amateurs have found out that earth conductivity depends mostly on the frequency of the incoming signals. Radio amateurs in many cities including Yerevan, Blagoveshchensk, Kherson, Rostov-na-Donu, Fergana, Kostroma, Arkhangel'sk, Kuybyshev, and Armavir have already entered the competition. Unfortunately, certain DOSAAF radio clubs and committees have not yet paid sufficient attention to this important task and that is why measuring has not begun in Leningrad, Minsk, Riga, Tallin, Smolensk, Kiyev, Khar'kov, Omsk, Irkutsk, Khabarovsk, Tbilisi, Baku, Tashkent, etc.

Card 2/2

KASHPROVSKIY, V.

Scientific crusade. IUn.tekh. 3 no.3:1-4 Mr '59.

1. Nachal'nik laboratorii rasprostraneniya srednikh radiovoln  
Nauchno-issledovatel'skogo instituta zemnogo magnetizma i  
rasprostraneniya radiovoln.  
(Radio research)

(MIRA 12:4)

S/203/63/003/002/014/027  
D207/D308

AUTHOR: Kashprovskiy, V.Ye.

TITLE: Local conductivities of soils and their distribution  
in the territory of the USSR

PERIODICAL: Geomagnetizm i aeronomiya, v. 3, no. 2, 1963, 297-  
308

TEXT: Propagation of radio waves along the air-soil boundary and penetration into soil is considered. An expression is derived for the effective conductivity of soils at high frequencies which is based on the skin-effect theory for layered media. These expressions can be used as the basis of a technique for measuring the soil conductivity and to convert the results obtained by low-frequency electric sounding of soils. Analysis of measurements in the USSR showed that the electrical conductivities are well correlated with the types of soil. Typical results range from  $20 \text{ m}\Omega^{-1}/\text{m}$  for Caucasus rocks to  $75 \text{ m}\Omega^{-1}/\text{m}$  for white alkali soils. These results were used to draw a map of local electrical conductivities of soils

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